THERAPEUTIC FOR GLIOBLASTOMA MULTIFORME AND OTHER CANCERS USING INDUCED ELECTRIC FIELDS

SUMMARY

Glioblastoma Multiforme (GBM) is the most common and devastating form of brain cancer. Despite existing conventional therapies, including an initial surgical resection followed by chemotherapy and radiation, GBM has a median survival of approximately 15 months and a two-year survival rate of 30%. The NICHD seeks parties interested in collaborative research to co-develop or license a cancer therapy device that uses induced electric fields.

REFERENCE NUMBER

E-187-2012

PRODUCT TYPE

- Devices
- Therapeutics

COLLABORATION OPPORTUNITY

This invention is available for licensing and co-development.

CONTACT

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DESCRIPTION OF TECHNOLOGY

Glioblastoma Multiforme (GBM) is the most common and devastating form of brain cancer. Despite existing conventional therapies, including an initial surgical resection followed by chemotherapy and radiation, GBM has a median survival of approximately 15 months and a two-year survival rate of 30%.

Researchers at the NICHD Program on Pediatric Imaging and Tissue Sciences report a novel therapeutic technology to treat GBM using induced electric fields. The electric fields are applied to the brain tissue via an array of coils placed over the scalp. The device prototype consists of a portable current generator with a customized coil array. It has been shown to reduce pain for patients and be easy to use.

POTENTIAL COMMERCIAL APPLICATIONS

- Treatment of patients with Glioblastoma Multiforme (GBM).

- Research tool to study mechanisms of electric field effects on mitosis and other cell and tissue processes.

COMPETITIVE ADVANTAGES

- Portable, painless, easy to operate, no scalp burns that occur when using current electrodes

INVENTOR(S)

Peter J. Basser (NICHD)

DEVELOPMENT STAGE

- Discovery (Lead Identification)

PUBLICATIONS

Silva S, et al. PMID 18783986; Salvador R, el al. PMID 21035390

PATENT STATUS

- **U.S. Filed:** US Patent Application No. 61/954,494 filed 17 March 2014
- **Foreign Filed:** Pending

THERAPEUTIC AREA

- Cancer/Neoplasm